Figure 4-17. Typical bank rated "moderate" in fine-sediment contribution due to large portion of coarse material in the bank.

The stream passes though a series of small moraines over the first kilometer below the Portal Road bridge (Hotspots 38 to 43, Table 4-7). The channel along this reach varies from boulder controlled step pool to gravel pool-riffle meadows above each moraine. The bouldery banks along the moraines are well protected from erosion by the large grain size material. The pool-riffle reaches have erodable silt/sand banks formed as either beaver ponded sediment or as lacustrine deposits behind the moraines. Fine-sediment availability is rated low in the boulder step-pools and moderate along pool-riffle meadows.

Summary

The Upper Truckee River exhibits a general trend of increasing stability with distance upstream, indicative of a channel undergoing adjustment to disturbance(s) (Figure 4-20 A). The lowest reaches, from the Upper Truckee Marsh to the golf course, have a greater available supply of fine sediment due to bank heights being high enough to slough off when undercut, the lack of root penetration through to the bank toe, and the lack of coarse material to protect the bank toes. Upstream of the golf course the channel has little fine sediment as it passes through a moraine. The meadow reaches between moraines provide silt/sand sediments from banks that are susceptible to erosion by sloughing. However, unlike from golf course downstream, the banks in this reach are not as high, and they contain greater quantities of sand and gravel, thereby reducing the available amount of erodible fine sediment.

Geomorphic interpretations made during the stream walk and evaluated during RGAs are further summarized spatially with maps depicting the:

(1) combined-, channel-, and side-slope erosion indexes (Figure 4-18), and